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DICTIONARY FILE UPDATES:  21 SEP 2006  HIGHEST RN 908228-18-2

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=>
Uploading C:\Program Files\Stnexp\Queries\150f.str

L7      STRUCTURE UPLOADED

=> d l7
L7 HAS NO ANSWERS
L7              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l7 sss sam
SAMPLE SEARCH INITIATED 14:49:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       27 TO ITERATE

100.0% PROCESSED       27 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          229 TO      851
PROJECTED ANSWERS:               0 TO        0

L8            0 SEA SSS SAM L7

=> s l7 sss full
FULL SEARCH INITIATED 14:50:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      755 TO ITERATE

100.0% PROCESSED      755 ITERATIONS                           20 ANSWERS
SEARCH TIME: 00.00.01

L9           20 SEA SSS FUL L7

=> fil hcaplus
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	169.73

FILE 'HCAPLUS' ENTERED AT 14:50:09 ON 22 SEP 2006

FILE COVERS 1907 - 22 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 21 Sep 2006 (20060921/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

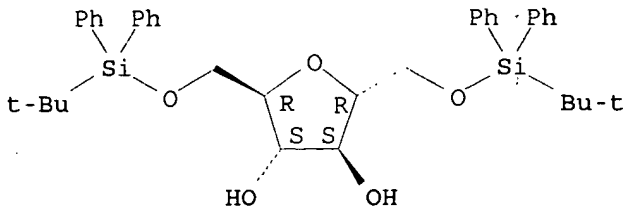
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l9
L10 19 L9

=> d l10 ibib hitstr abs all

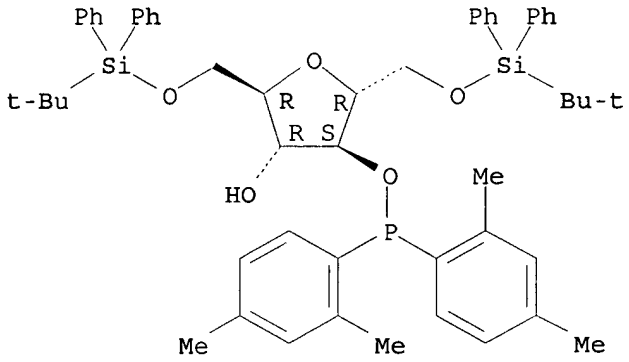
L10 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:165092 HCAPLUS
DOCUMENT NUMBER: 144:370172
TITLE: New C2- and C1-Symmetric phosphorus ligands based on carbohydrate scaffolds and their use in the iridium-catalysed hydrogenation of ketimines
AUTHOR(S): Guiu, Ester; Aghmiz, Mohamed; Diaz, Yolanda; Claver, Carmen; Meseguer, Benjami; Militzer, Christian; Castillon, Sergio
CORPORATE SOURCE: Departament de Quimica Analitica i Quimica Organica, Universitat Rovira i Virgili, Tarragona, 43005, Spain
SOURCE: European Journal of Organic Chemistry (2006), (3), 627-633
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:370172
IT 666825-71-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
RN 666825-71-4 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 666826-33-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
RN 666826-33-1 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]-, 3-[bis(2,4-dimethylphenyl)phosphinite] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



AB D-Mannitol-derived C2-sym. diarylphosphinite and C1-sym. diaryl phosphite-phosphinite ligands were prepared from silylated D-glucosamine; asym. hydrogenation of acetophenone benzylimine, catalyzed by iridium complexes with new ligands gave N-benzyl-1-phenylethylamine with 73% ee. The C2-sym. diphosphinites, (3R,4R)-2,5-(TBDPSO)2-3,4-(Ar2PO)-tetrahydrofurans (10a-d; Ar = Ph, 4-MeOC6H4, 4-CF3C6H4, 3,5-Me2C6H3) were prepared by reaction of (3S,4S)-2,5-(TBDPSO)2-3,4-tetrahydrofurandiol (12) with Ar2PCl or Ar2PNEt2; the mono-substituted (3R,4S)-2,5-(TBDPSO)2-4-(Ar2PO)-3-tetrahydrofuranol was esterified by 2,2'-methylenebis[4-methyl-6-CMeR1R2-phenyl] phosphorochloridites to give the corresponding C1-sym. phosphite-phosphinites [11a,b, R1 = R2 = Me, R1+R2 = (CH2)5]. Various procedures for synthesizing the phosphinite function were explored in order to improve the yield of the reaction. Results were best when Ph2PNEt2 was used in the presence of tetrazol as catalyst. The prepared ligands, which have different electron-donating or electron-withdrawing aryl groups were added to iridium complexes producing catalyst precursors active in the asym. hydrogenation of acetophenone N-benzyl- and N-phenylimines (17, 19). Cationic iridium complexes were more active than the neutral analogs. The use of additives was, in general, detrimental to both the conversion and the enantioselectivity. In the hydrogenation of 17, results were best with ligand 11a (76% ee), but in the hydrogenation of 19 (70% ee) they were best with ligand 10b.
AN 2006:165092 HCAPLUS
DN 144:370172
ED Entered STN: 23 Feb 2006
TI New C2- and C1-Symmetric phosphorus ligands based on carbohydrate scaffolds and their use in the iridium-catalysed hydrogenation of ketimines

AU Guiu, Ester; Aghmiz, Mohamed; Diaz, Yolanda; Claver, Carmen; Meseguer, Benjami; Militzer, Christian; Castillon, Sergio
CS Departament de Quimica Analitica i Quimica Organica, Universitat Rovira i Virgili, Tarragona, 43005, Spain
SO European Journal of Organic Chemistry (2006), (3), 627-633
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 28, 33
OS CASREACT 144:370172
AB D-Mannitol-derived C2-sym. diarylphosphinite and C1-sym. diaryl phosphite-phosphinite ligands were prepared from silylated D-glucosamine; asym. hydrogenation of acetophenone benzylimine, catalyzed by iridium complexes with new ligands gave N-benzyl-1-phenylethylamine with 73% ee. The C2-sym. diphosphinites, (3R,4R)-2,5-(TBDPSO)2-3,4-(Ar2PO)-tetrahydrofurans (10a-d; Ar = Ph, 4-MeOC6H4, 4-CF3C6H4, 3,5-Me2C6H3) were prepared by reaction of (3S,4S)-2,5-(TBDPSO)2-3,4-tetrahydrofurandiol (12) with Ar2PCl or Ar2PNEt2; the mono-substituted (3R,4S)-2,5-(TBDPSO)2-4-(Ar2PO)-3-tetrahydrofuranol was esterified by 2,2'-methylenebis[4-methyl-6-CMeR1R2-phenyl] phosphorochloridites to give the corresponding C1-sym. phosphite-phosphinites [11a,b, R1 = R2 = Me, R1+R2 = (CH2)5]. Various procedures for synthesizing the phosphinite function were explored in order to improve the yield of the reaction. Results were best when Ph2PNEt2 was used in the presence of tetrazol as catalyst. The prepared ligands, which have different electron-donating or electron-withdrawing aryl groups were added to iridium complexes producing catalyst precursors active in the asym. hydrogenation of acetophenone N-benzyl- and N-phenylimines (17, 19). Cationic iridium complexes were more active than the neutral analogs. The use of additives was, in general, detrimental to both the conversion and the enantioselectivity. In the hydrogenation of 17, results were best with ligand 11a (76% ee), but in the hydrogenation of 19 (70% ee) they were best with ligand 10b.
ST phosphinite phosphite mannitol chiral nonracemic prepn asym hydrogenation catalyst; diarylphosphinite chiral nonracemic bidentate prepn phosphinamidite esterification mannitol; phosphite chiral nonracemic phosphinite prepn mannitol esterification iridium complexation; imine asym hydrogenation catalyst iridium diarylphosphinite phosphite mannitol deriv
IT Asymmetric synthesis and induction
(asym. hydrogenation; preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
IT Phosphorus acids
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(esters, phosphinites; preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
IT Imines
RL: RCT (Reactant); RACT (Reactant or reagent)
(ketimines; preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
IT Phosphites
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)
IT Carbohydrates, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT Hydrogenation catalysts
(stereoselective, asym.; preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT 12112-67-3 35138-23-9 666825-73-6
RL: CAT (Catalyst use); USES (Uses)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT 666826-00-2P 666826-05-7P 666826-06-8P 666826-22-8P 881994-91-8P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT 1749-19-5 13685-91-1 13685-97-7 14428-98-9 106054-14-2
110814-25-0 666825-71-4 666825-96-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT 666826-33-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

IT 17480-69-2P 21232-36-0P 21232-37-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of chiral C2-sym. bis-phosphinites and C1-sym. phosphinite-phosphites with carbohydrate-derived D-mannitol backbone as ligands for iridium-catalyzed asym. hydrogenation of imines)

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

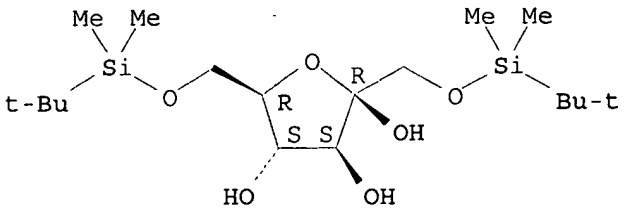
(1) Aghmiz, M; J Org Chem 2004, V69, P7502 HCAPLUS
(2) Anon; Catalytic Asymmetric Synthesis 1993
(3) Anon; Comprehensive Asymmetric Catalysis 1999, V1
(4) Barbaro, P; Organometallics 2002, V21, P1430 HCAPLUS
(5) Bayer, A; Eur J Inorg Chem 2002, P2614 HCAPLUS
(6) Bianchini, C; Eur J Inorg Chem 2001, P43 HCAPLUS
(7) Blaser, H; Adv Synth Catal 2003, V345, P103 HCAPLUS
(8) Blaser, H; Isotopics 2002, V19, P3 HCAPLUS
(9) Buisman, G; Tetrahedron: Asymmetry 1995, V6, P719 HCAPLUS
(10) Casalnuovo, A; J Am Chem Soc 1994, V116, P9869 HCAPLUS
(11) Dieguez, M; Chem Commun 2000, P1607 HCAPLUS
(12) Dieguez, M; Chem Commun 2001, P1132 HCAPLUS
(13) Dieguez, M; Chem Eur J 2001, V7, P3086 HCAPLUS
(14) Dieguez, M; J Org Chem 2002, V67, P3796 HCAPLUS
(15) Dieguez, M; New J Chem 2002, V26, P826
(16) Guiu, E; Adv Synth Catal 2003, V345, P169 HCAPLUS
(17) Guiu, E; Tetrahedron: Asymmetry 2004, V15, P3365 HCAPLUS
(18) Hamamoto, S; Chem Lett 1986, P1401 HCAPLUS
(19) Holz, J; Eur J Org Chem 2001, V63, P4621
(20) Horton, D; Carbohydr Res 1973, V30, P367 HCAPLUS
(21) Kobayashi, S; Chem Rev 1999, V99, P1069 HCAPLUS
(22) Li, W; J Org Chem 2000, V65, P3489 HCAPLUS
(23) Li, W; J Org Chem 2002, V67, P7618 HCAPLUS
(24) Li, W; Tetrahedron Lett 1999, V40, P6701 HCAPLUS
(25) Margalef-Catala, R; Tetrahedron: Asymmetry 2000, V11, P1469 HCAPLUS
(26) Morimoto, T; Synlett 1995, P748 HCAPLUS

(27) Morimoto, T; Tetrahedron: Asymmetry 1995, V6, P2661 HCAPLUS
(28) Otero, D; Carbohydr Res 1984, V128, P79 HCAPLUS
(29) Palmer, M; Tetrahedron: Asymmetry 1999, V10, P2045 HCAPLUS
(30) Pamies, O; Chem Commun 2000, V12, P2383
(31) Pamies, O; J Org Chem 2001, V66, P8364 HCAPLUS
(32) Pfaltz, A; Chimia 2001, V55, P708 HCAPLUS
(33) RajanBabu, T; J Am Chem Soc 1992, V114, P6265 HCAPLUS
(34) RajanBabu, T; J Am Chem Soc 1994, V116, P4101 HCAPLUS
(35) RajanBabu, T; J Am Chem Soc 2001, V123, P10207 HCAPLUS
(36) Rajanbabu, T; J Org Chem 1997, V62, P6012 HCAPLUS
(37) Reetz, M; Tetrahedron: Asymmetry 1999, V10, P2129 HCAPLUS
(38) Sablong, R; Tetrahedron Lett 1996, V37, P4937 HCAPLUS
(39) Selke, R; J Mol Catal 1986, V37, P213 HCAPLUS
(40) Selke, R; J Mol Catal 1993, V84, P223 HCAPLUS
(41) Spindler, F; Angew Chem Int Ed Engl 1990, V29, P558
(42) Spindler, F; Transition Metals for Organic Synthesis 1998, V2, P69 HCAPLUS
(43) Tanaka, T; Tetrahedron Lett 1986, V27, P199 HCAPLUS
(44) Tani, K; Chem Lett 1995, P955 HCAPLUS
(45) Tararov, V; Tetrahedron: Asymmetry 1999, V10, P4009 HCAPLUS
(46) Togni, A; J Am Chem Soc 1994, V116, P4062 HCAPLUS
(47) van Straten, N; Tetrahedron 1997, V53, P6523 HCAPLUS
(48) van Straten, N; Tetrahedron 1997, V53, P6539 HCAPLUS
(49) Vargas, S; Tetrahedron Lett 2005, V46, P2049 HCAPLUS
(50) von Matt, P; Angew Chem Int Ed Engl 1993, V32, P566
(51) Xiao, D; Angew Chem Int Ed 2001, V40, P3425 HCAPLUS
(52) Yan, Y; J Org Chem 2000, V65, P900 HCAPLUS
(53) Yan, Y; Org Lett 2000, V2, P4137 HCAPLUS
(54) Zhu, G; Tetrahedron: Asymmetry 1998, V9, P2415 HCAPLUS

=> d l10 ibib hitstr abs 2-19

L10 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1053108 HCAPLUS
DOCUMENT NUMBER: 143:460341
TITLE: Observation of a 1,5-silyl-migration on fructose
AUTHOR(S): Furegati, Stefan; White, Andrew J. P.; Miller, Andrew D.
CORPORATE SOURCE: Imperial College Genetic Therapies Centre, Department of Chemistry, Imperial College London, London, SW7 2AZ, UK
SOURCE: Synlett (2005), (15), 2385-2387
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:460341
IT 869203-03-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(crystal structure of; unexpected base-assisted 1,5-silyl migration in fructose resulting in a sterically more crowded product)
RN 869203-03-2 HCAPLUS
CN β-D-Fructofuranose, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

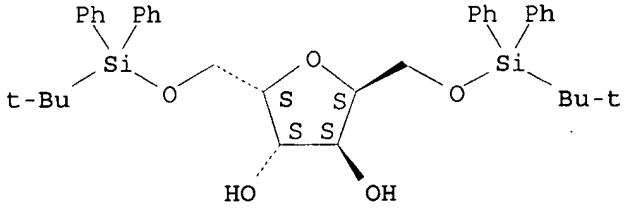


AB During synthetic studies involving fructose, an unexpected silyl migration was observed, resulting in a sterically more crowded product. 1,4-Silyl migrations have been observed previously taking place in several different carbohydrate derivs. However, here we report for the first time an apparent base-assisted 1,5-silyl migration in fructose, identified by evidence from X-ray crystallog. and 2D-NMR spectroscopy. This novel migration is related to the Brook rearrangement, and appears to be mediated via an anionic, cyclic transition state involving pentavalent silicon.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

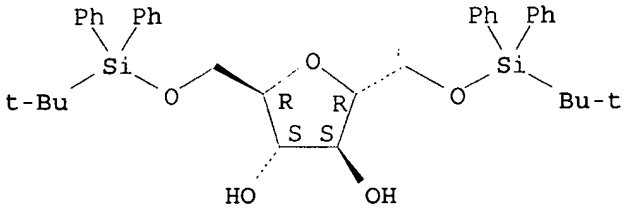
L10 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:795363 HCAPLUS
DOCUMENT NUMBER: 142:6223
TITLE: C2-Symmetric Diphosphinite Ligands Derived from Carbohydrates. The Strong Influence of Remote Stereocenters on Asymmetric Rhodium-Catalyzed Hydrogenation
AUTHOR(S): Aghmiz, Mohamed; Aghmiz, Ali; Diaz, Yolanda; Masdeu-Bulto, Anna; Claver, Carmen; Castillon, Sergio
CORPORATE SOURCE: Departament de Quimica Analitica i Quimica Organica, Facultat de Quimica, Universitat Rovira i Virgili, Tarragona, 43005, Spain
SOURCE: Journal of Organic Chemistry (2004), 69(22), 7502-7510
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:6223
IT 303764-33-2P 666825-71-4P 797043-20-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of C2-sym. diphosphinite ligands derived from carbohydrates for asym. rhodium-catalyzed hydrogenation)
RN 303764-33-2 HCAPLUS
CN L-Iditol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



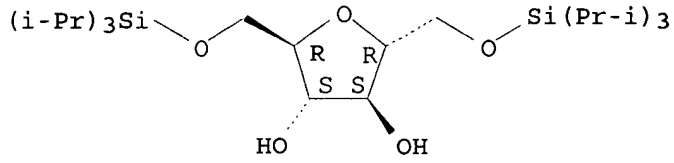
RN 666825-71-4 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

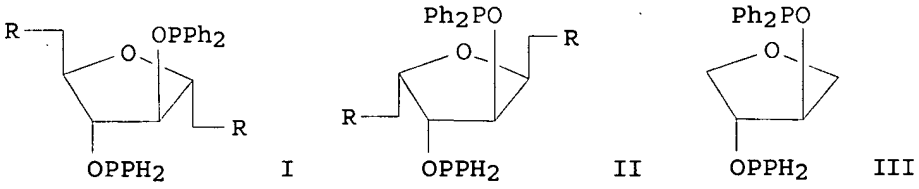


RN 797043-20-0 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[tris(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



GI



AB Modular ligands of C2 symmetry I-III [R = OCPh3, OSiMe2CMe3, OTs, H, OSi(CHMe2)3] were easily prepared from D-glucosamine, D-glucitol, and tartaric acid, resp. The application of these ligands in the rhodium-catalyzed hydrogenation of Me acetamidoacrylate, Me acetamidocinnamate, and di-Me itaconate shows that both the configuration and the substituents at positions 2 and 5 of the THF backbone have a strong influence on the enantioselectivity of the processes.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

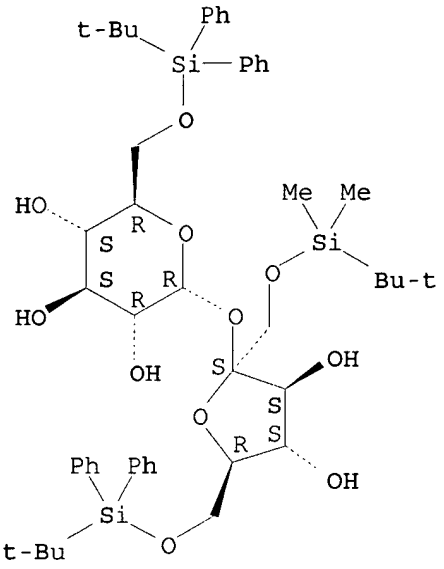
L10 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:746141 HCAPLUS
DOCUMENT NUMBER: 141:395724
TITLE: Facile conversion of O-silyl protected sugars into their corresponding formates using POCl3·DMF complex
AUTHOR(S): Andrade, Marta M.; Barros, M. Teresa
CORPORATE SOURCE: Faculdade de Ciencias e Tecnologia, Departamento de Quimica, REQUIMTE/CQFB, Universidade Nova de Lisboa, Caparica, 2829-516, Port.
SOURCE: Tetrahedron (2004), 60(41), 9235-9243
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:395724
IT 303779-98-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(facile conversion of O-silyl protected sugars into their corresponding formates using Vilsmeier-Haack complex, POCl3·DMF)

RN 303779-98-8 HCAPLUS

CN α-D-Glucopyranoside, 1-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-[(1,1-dimethylethyl)diphenylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB The direct O-formylation of two selectively protected sugar derivs. using the Vilsmeier-Haack (V-H) complex POCl3·DMF was studied. Primary O-TBDMS and O-TBDPS ethers of sucrose, the most common disaccharide, underwent regio- and chemoselective O-formylation with this formylating agent. This conversion was also studied with a monosaccharide analog.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:213308 HCAPLUS

DOCUMENT NUMBER: 140:253716

TITLE: Preparation of chiral monophosphorus compounds and their transition metal complexes as catalysts for stereoselective hydrogenation

INVENTOR(S): Meseguer, Benjamin; Militzer, Hans-Christian; Castillon, Sergio; Claver, Carmen; Guiu, Ester

PATENT ASSIGNEE(S): Bayer Chemicals A.-G., Germany; Lanxess Deutschland GmbH

SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

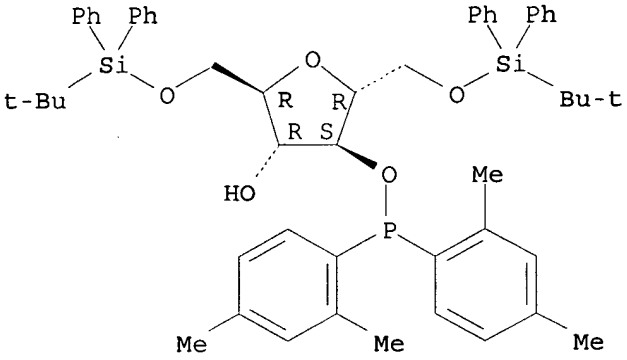
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1398319	A1	20040317	EP 2003-19803	20030830
EP 1398319	B1	20051109		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

DE 10242351	A1	20040318	DE 2002-10242351	20020912
AT 309255	E	20051115	AT 2003-19803	20030830
CN 1496991	A	20040519	CN 2003-160281	20030911
US 2004127430	A1	20040701	US 2003-660150	20030911

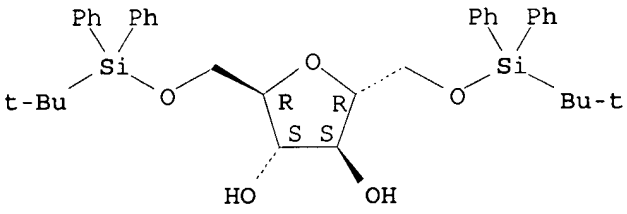
PRIORITY APPLN. INFO.: DE 2002-10242351 A 20020912
OTHER SOURCE(S): CASREACT 140:253716; MARPAT 140:253716
IT 666826-33-1P
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of chiral monophosphorus compds. and their transition metal complexes as catalysts for stereoselective hydrogenation of enamides)
RN 666826-33-1 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]-, 3-[bis(2,4-dimethylphenyl)phosphinite] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

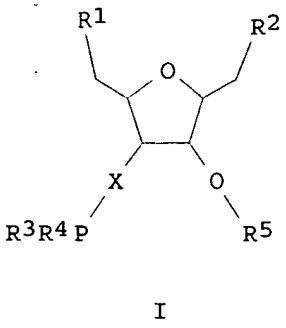


IT 666825-71-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral monophosphorus compds. and their transition metal complexes as catalysts for stereoselective hydrogenation of enamides)
RN 666825-71-4 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

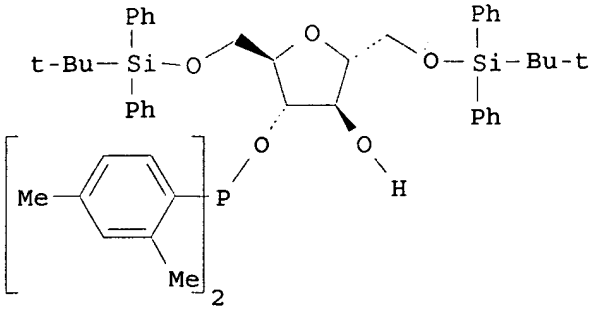
Absolute stereochemistry. Rotation (+).



GI



I



II

AB The preparation of monophosphorus compds. I (X = O, bond; R1, R2 = same or different organosilyl; R3, R4 = same or different alkyl, organoamino, organoalkoxy, C2-4 alkylene, arylene, cyclohexylene, ferrocenylene, etc.; R5 = H, C1-20 alkyl, C4-24 aryl, C5-25 arylalkyl, C1-20 haloalkyl, etc.), useful as cocatalyst for transition metal complex catalyzed stereoselective hydrogenation, is described. Thus, preparation of chiral monophosphorus compound II is described starting from 2,5-anhydro-D-mannitol; rhodium/II complex catalyzed stereoselective hydrogenation of PhC(:CH2)NHCOMe is also described.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

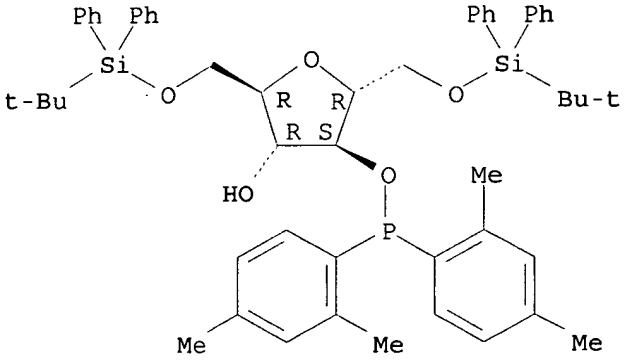
L10 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:177965 HCAPLUS
DOCUMENT NUMBER: 140:235900
TITLE: Preparation of chiral diphosphines and their transition metal complexes and their use in asymmetric synthesis
INVENTOR(S): Meseguer, Benjamin; Militzer, Hans-Christian; Castillon, Sergio; Claver, Carmen; Diaz, Yolanda; Aghmiz, Mohamed; Guiu, Esther; Aghmiz, Ali; Masdeu, Anna
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 34 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10241256	A1	20040304	DE 2002-10241256	20020906
EP 1400527	A1	20040324	EP 2003-18221	20030811
EP 1400527	B1	20060322		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 321059	E	20060415	AT 2003-18221	20030811
US 2005080047	A1	20050414	US 2003-643552	20030819
JP 2004161741	A2	20040610	JP 2003-208112	20030820
CN 1493576	A	20040505	CN 2003-158087	20030821

PRIORITY APPLN. INFO.: DE 2002-10238115 IA 20020821
DE 2002-10241256 A 20020906
OTHER SOURCE(S): CASREACT 140:235900; MARPAT 140:235900
IT 666826-33-1P
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of chiral diphosphines and its transition metal complexes and

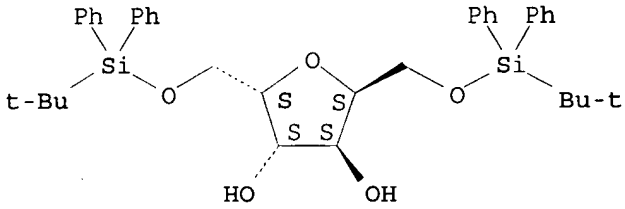
their use in asym. synthesis)
RN 666826-33-1 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]-, 3-[bis(2,4-dimethylphenyl)phosphinite] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



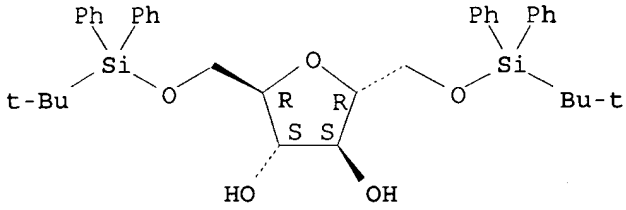
IT 303764-33-2P 666825-71-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral diphosphines and its transition metal complexes and their use in asym. synthesis)
RN 303764-33-2 HCAPLUS
CN L-Iditol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

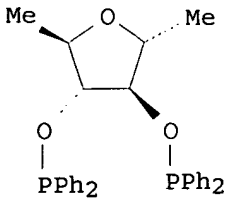


RN 666825-71-4 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



GI

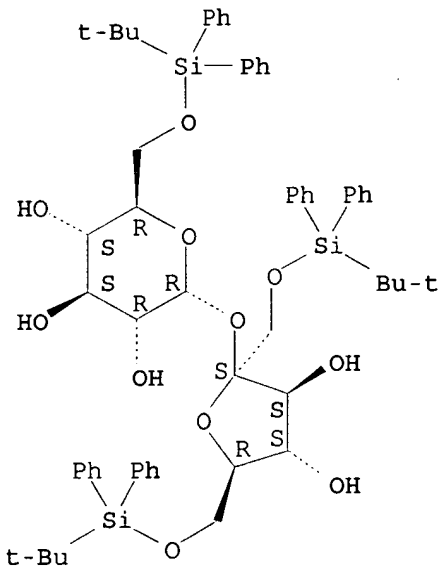


I

AB The present invention concerns the preparation of chiral diphosphines their transition metal complexes, and use of complexes in asym. syntheses. Thus, preparation of 2,3-bis-O-(diphenylphosphino)-1,6-dideoxy-2,5-anhydro-D-mannitol I, prepared from 1,6-dideoxy-2,5-anhydro-D-mannitol, and [Rh(cod)2]BF4/I catalyzed enantioselective hydrogenation of CH2:C(NHAc)(CO2Me) is described.

L10 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:808828 HCAPLUS
DOCUMENT NUMBER: 138:187980
TITLE: Facilely accessible multidrug resistance modulator derived from sucrose
AUTHOR(S): Murakami, Nobutoshi; Tamura, Satoru; Iwata, Etsuko; Aoki, Shunji; Akiyama, Shin-ichi; Kobayashi, Motomasa
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, 565-0871, Japan
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(22), 3267-3270
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:187980
IT 81086-97-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and multidrug resistance modulation on KB human cell lines of isovalerylsucrose derivs.)
RN 81086-97-7 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

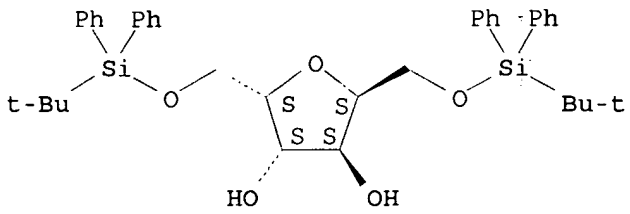


AB Exploration for new MDR-modulators utilizing atractysucroses as scaffolds disclosed 2,3,4,3',4'-O-pentaisovalerylsucrose (I) as a readily accessible medicinal lead. This lead was prepared from sucrose in 65% total yield for three steps. In addition, I exhibited more potent MDR modulating activity than verapamil, a representative modulator of MDR mediated by P-gp.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:612961 HCAPLUS
DOCUMENT NUMBER: 133:335447
TITLE: Synthesis and Conformational Studies of Peptidomimetics Containing Furanoid Sugar Amino Acids and a Sugar Diacid
AUTHOR(S): Chakraborty, T. K.; Ghosh, S.; Jayaprakash, S.; Sharma, J. A. R. P.; Ravikanth, V.; Diwan, P. V.; Nagaraj, R.; Kunwar, A. C.
CORPORATE SOURCE: Centre for Cellular and Molecular Biology, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SOURCE: Journal of Organic Chemistry (2000), 65(20), 6441-6457
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:335447
IT 303764-33-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and conformational studies of peptidomimetics containing furanoid sugar amino acids as)
RN 303764-33-2 HCAPLUS
CN L-Iditol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Furanoid sugar amino acids (I) were synthesized and used as dipeptide isosteres to induce interesting turn structures in small linear peptides. They belong to a new variety of designed hybrid structures that carry both amino and carboxyl groups on rigid furanose sugar rings. Four such mols., 6-amino-2,5-anhydro-6-deoxy-D-gluconic acid (Gaa) and its mannonic, idonic (Iaa), and 3,4-dideoxyidonic congeners were synthesized. The synthesis followed a novel reaction path in which an intramol. 5-exo SN2 opening of the hexose-derived terminal aziridine ring in (II) by the γ-benzyloxy oxygen with concomitant debenzylation occurred during pyridinium dichromate oxidation of the primary δ-hydroxyl group to carboxyl function, leading to the formation of furanoid sugar amino acid frameworks in a single step. Incorporation of these furanoid sugar amino acids into Leu-enkephalin replacing its Gly-Gly portion gave analogs [(III); R = tBuOC(O), H; R1 = OH, H]. Detailed structural anal. of these mols. by CD and various NMR techniques in combination with constrained mol. dynamics (MD) simulations revealed that two of these analogs [III; P = tBuOC(O); R1 = OH; 2R,5R or 2S,5R] have folded conformations composed of an unusual nine-membered pseudo β-turn-like structure with a strong intramol. H-bond between LeuNH → sugarC3-OH. This, in turn, brings the two aromatic rings of Tyr and Phe in close proximity, a prerequisite for biol. activities of opioid peptides. The analgesic activities of III (R = tBuOC(O), H; R1 = OH; 2R,5R) determined by mouse hot-plate and tail-clip methods were similar to that of Leu-enkephalin Me ester. The syn disposition of the β-hydroxy-carboxyl motif on the sugar rings appears to be the driving force to nucleate the observed turn structures in some of these mols. Repetition of the motif on both sides of a furanose ring resulted in a novel mol. design of sugar diacid, 2,5-anhydro-D-idaric acid (IV). Bidirectional elongation of the diacid moieties of IV with identical peptide strands led to the formation of a C2-sym. reverse-turn mimetic 12 which displayed a very ordered structure consisting of identical intramol. H-bonds at two ends between LeuNH → sugar-OH, the same as in III (R = tBuOC(O), H; R1 = OH; 2R,5R or 2S,5R).

REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:602686 HCAPLUS

DOCUMENT NUMBER: 133:335399

TITLE: Fast Galloylation of a Sugar Moiety: Preparation of Three Monogalloylsucroses as References for Antioxidant Activity. A Method for the Selective Deprotection of tert-Butyldiphenylsilyl Ethers

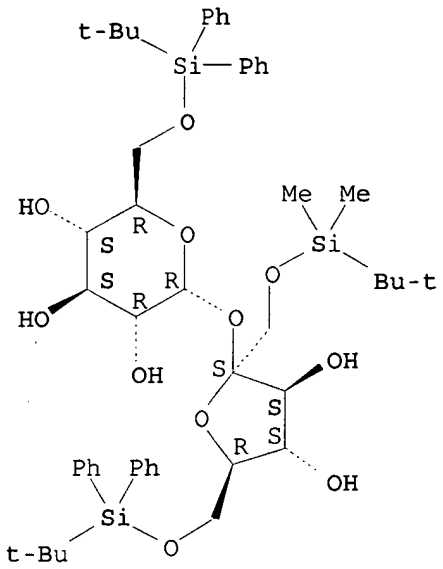
AUTHOR(S): Barros, M. T.; Maycock, C. D.; Sineriz, F.; Thomassigny, C.

CORPORATE SOURCE: Instituto de Biologia Experimental e Tecnologica, Universidade Nova de Lisboa, Oeiras, P-2780-156, Port.

SOURCE: Tetrahedron (2000), 56(35), 6511-6516
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:335399
IT 303779-98-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(acetylation; fast galloylation method for preparation of monogalloyl sucroses and method for selective deprotection of tert-butyldiphenylsilyl ethers)
RN 303779-98-8 HCAPLUS
CN α-D-Glucopyranoside, 1-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-[(1,1-dimethylethyl)diphenylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB Three protected new gallotannins, namely the 6'-O-(tri-O-methylgalloyl)-2,3,4,6,1',3',4'-hepta-O-acetylsucrose, the 6'-O-(tri-O-methylgalloyl)-2,3,4,6,1',3',4'-hepta-O-benzoylsucrose and the 6,6'-di-O-tert-butyldiphenylsilyl-1'-O-(tri-O-methylgalloyl)-2,3,4,3',4'-penta-O-acetylsucrose have been prepared in 4 short sequences from sucrose. Methods for rapid galloylation have been studied in order to avoid simultaneous acyl transfer reactions. A method for the deprotection of a tert-butyldiphenylsilyl ether using Br in MeOH has been developed which avoids the intramol. migration of a benzoate group.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

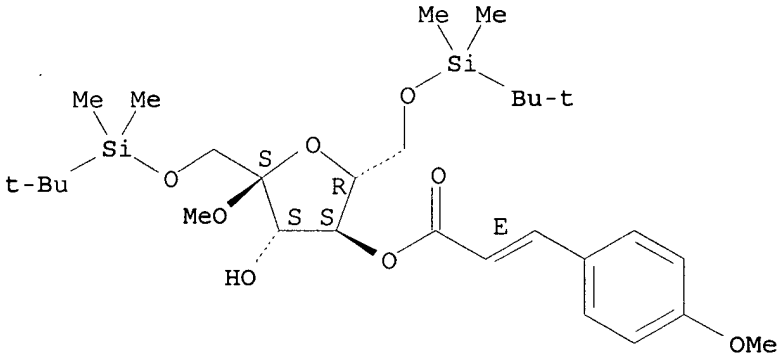
L10 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:255218 HCAPLUS
DOCUMENT NUMBER: 118:255218
TITLE: Oligosaccharide microscale analysis by circular dichroic spectroscopy: reference spectra for chromophoric D-fructofuranoside derivatives
AUTHOR(S): Ikemoto, Norihiro; Lo, Lee Chiang; Kim, Oak Kyung; Berova, Nikolina; Nakanishi, Koji
CORPORATE SOURCE: Dep. Chem., Columbia Univ., New York, NY, 10027, USA
SOURCE: Carbohydrate Research (1993), 239, 11-33
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 147694-16-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of, with bromobenzoyl chloride)

RN 147694-16-4 HCAPLUS

CN α-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 4-[3-(4-methoxyphenyl)-2-propenoate], (E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

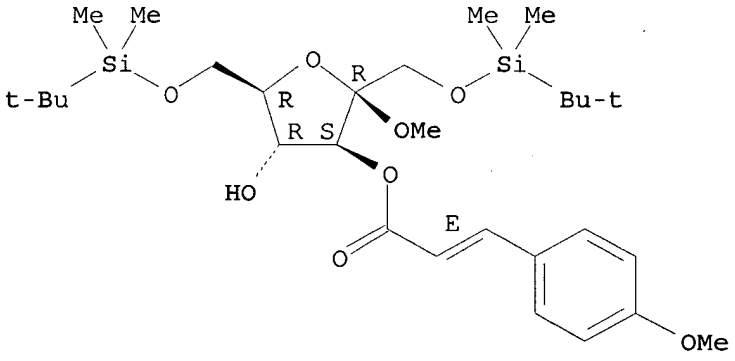


IT 147694-17-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of, with bromobenzoyl chloride)

RN 147694-17-5 HCAPLUS

CN β-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3-[3-(4-methoxyphenyl)-2-propenoate], (E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

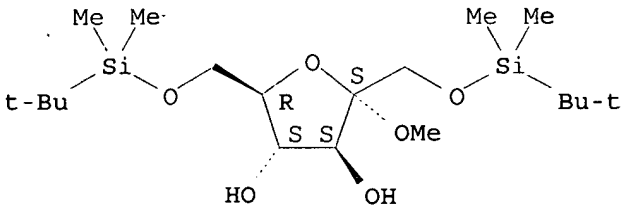


IT 147672-48-8P 147672-49-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of, with bromobenzoyl or methoxycinnamoyl chlorides)

RN 147672-48-8 HCAPLUS

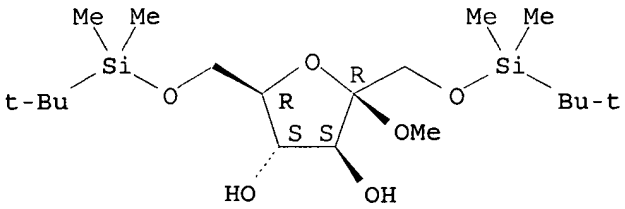
CN α-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



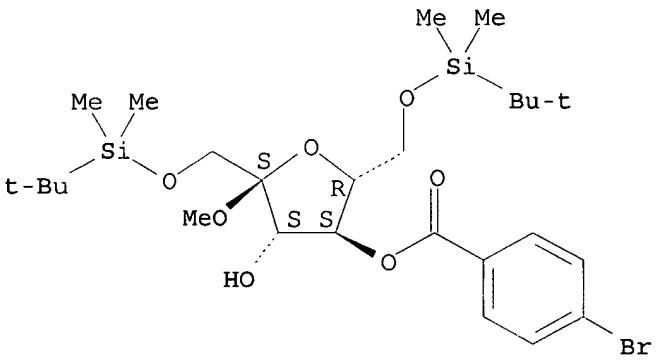
RN 147672-49-9 HCAPLUS
CN β-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



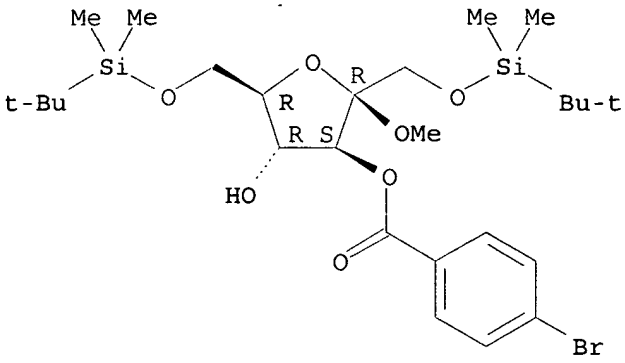
IT 147672-52-4P 147672-53-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of, with methoxycinnamoyl chloride)
RN 147672-52-4 HCAPLUS
CN α-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 4-(4-bromobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



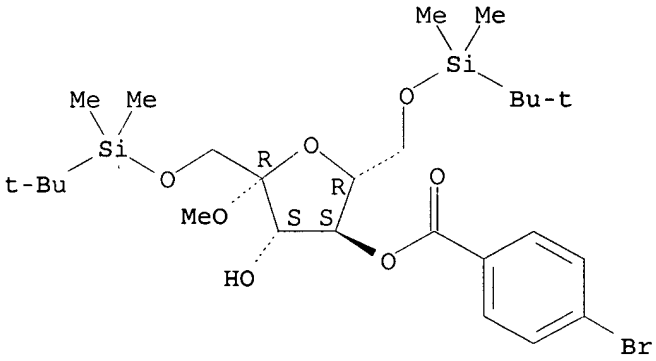
RN 147672-53-5 HCAPLUS
CN β-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3-(4-bromobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



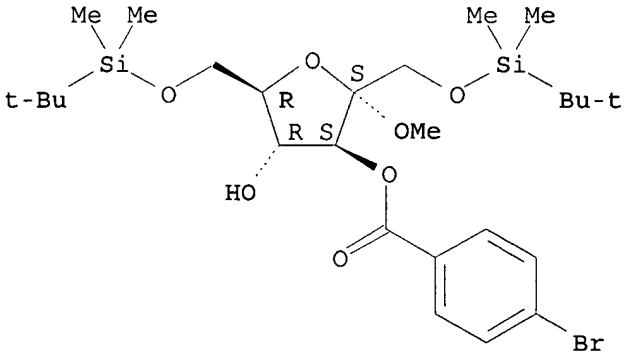
IT 147672-57-9P 148556-74-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 147672-57-9 HCAPLUS
CN β-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 4-(4-bromobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 148556-74-5 HCAPLUS
CN α-D-Fructofuranoside, methyl 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3-(4-bromobenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

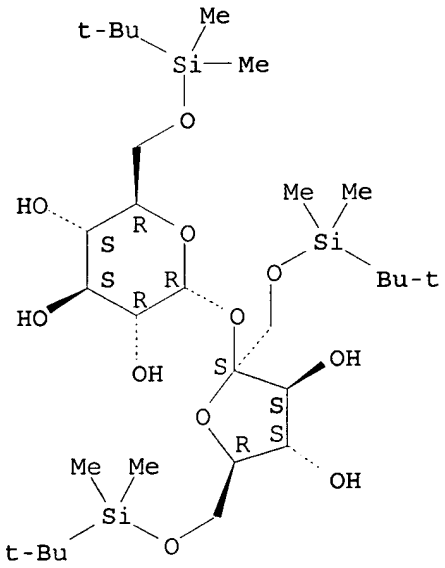


AB The microscale anal. method, that is being developed in the authors' group for the structure determination of oligosaccharides, yields monosaccharide derivs. bearing two types of chromophores suitable for exciton-coupling, namely, 4-bromobenzoate (λmax 245 nm) and 4-methoxycinnamate (λmax

311 nm). Comparison of the circular dichroic (CD) curves of these subunits to those in the reference library allows for the determination of the sugar identities, linkage positions, and the absolute configurations. The 32 possible derivs. of Me α- and β-D-fructofuranosides bearing four chromophores were prepared and their CD spectra recorded. These data serve to extend the CD library, which already encompasses pyranoside derivs. with the gluco-, galacto-, and manno-configurations, and extend the utility of this methodol. to the anal. of fructose-containing oligosaccharides.

L10 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:62547 HCAPLUS
DOCUMENT NUMBER: 114:62547
TITLE: Sugar chemistry. VII. Periodate oxidation of sucrose derivatives
AUTHOR(S): Badel, Agnes; Descotes, Gerard; Mentech, Julio
CORPORATE SOURCE: Lab. Chim. Org. II, Univ. Lyon I, Villeurbanne, F-69622, Fr.
SOURCE: Carbohydrate Research (1990), 205, 323-31
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 114:62547
IT 63734-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(periodate oxidation of)
RN 63734-13-4 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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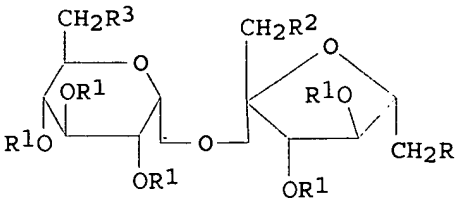


I

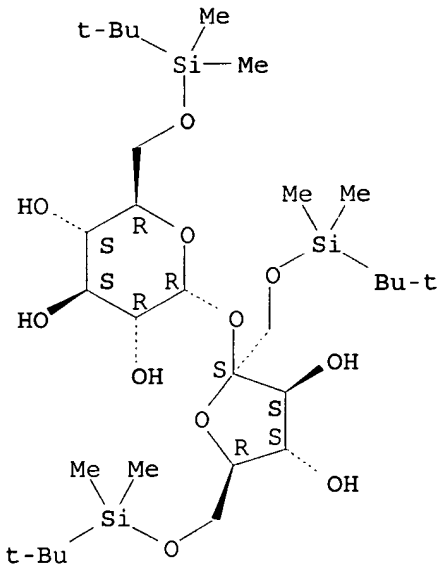
AB The periodate oxidation of sucrose derivs. I (R, R2, R3 = OH, Cl, OCPh3, OSiMe2CMe3; R1=H, Ac) is generally selective for the D-glucopyranoside group. A cleavage at the C(2)-C(3) or C(3)-C(4) positions was observed for I (R, R2, R3 = OCPh3, OSiMe2CMe3) resp. The periodate oxidation was more complete for all other derivs. with cleavage at both C(2)-C(3) and C(3)-C(4).

L10 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:7081 HCAPLUS
DOCUMENT NUMBER: 114:7081
TITLE: Preparation of sucrose derivatives as bacteriostatics
INVENTOR(S): Badel, Agnes; Descotes, Gerard; Mentech, Julio; Thiriet, Bernard
PATENT ASSIGNEE(S): Beghin-Say S. A., Fr.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 349431	A1	19900103	EP 1989-401860		19890629
EP 349431	B1	19920415			
R: BE, CH, DE, ES, FR, GB, IT, LI, NL					
FR 2633626	A1	19900105	FR 1988-8723		19880629
FR 2633626	B1	19920228			
ES 2036818	T3	19930601	ES 1989-401860		19890629
PRIORITY APPLN. INFO.:			FR 1988-8723	A	19880629

OTHER SOURCE(S): MARPAT 114:7081
IT 63734-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(periodic oxidation of)
RN 63734-13-4 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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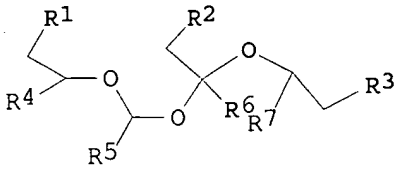


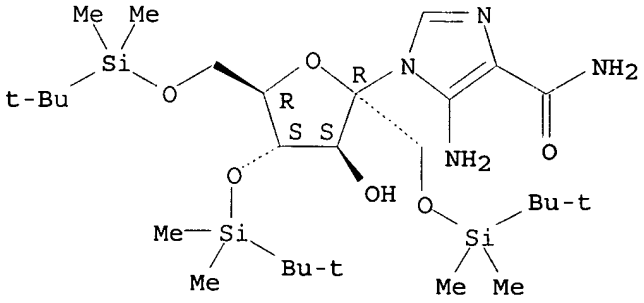
I

AB The title compds. [I; R1, R2, R3 = OH, halo, acyloxy, hydrocarbylsilyloxy; R4, R5 = CHO, CH(OH)CHO; or R4R5 = CH(OH)CH(OH)CH(OH) (glucose configuration); R6, R7 = CHO, or R6R7 = CH(OH)CH(OH) (fructose configuration); however, when R4R5 = CH(OH)CH(OH)CH(OH) (glucose configuration), R6R7 may not be CH(OH)CH(H) (fructose configuration); also, R1, R2, and R3 may not simultaneously be OH] were prepared 1',6,6-O-Tris(tert-butyldimethylsilyl)sacharose was oxidized with Na metaperiodate in H2O-CHCl3 at 10° for 12 h to give 1 [R1 = R2 = R3 = OSiMe2CMe3, R4 = CHO, R5 = CH(OH)CH(OH) (fructose configuration)]. Saccharose oxide 6,6'-dipalmitate (preparation given) had min. inhibitory concentration of 0.01 mg/mL against Staphylococcus ATCC 6538P.

L10 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:24205 HCAPLUS
DOCUMENT NUMBER: 110:24205
TITLE: A novel stereospecific synthesis of 5-amino-1-β-D-fructofuranosylimidazole-4-carboxamide
AUTHOR(S): Grouiller, Annie; Mackenzie, Grahame; Najib, Boubker; Shaw, Gordon; Ewing, David
CORPORATE SOURCE: Inst. Natl. Sci. Appl. Lyon, Villeurbanne, 69621, Fr.
SOURCE: Journal of the Chemical Society, Chemical Communications (1988), (10), 671-2
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:24205
IT 117901-65-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deprotection of)
RN 117901-65-2 HCAPLUS
CN 1H-Imidazole-4-carboxamide, 5-amino-1-[1,4,6-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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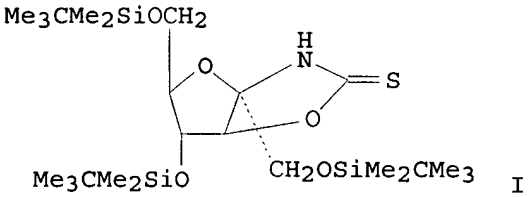

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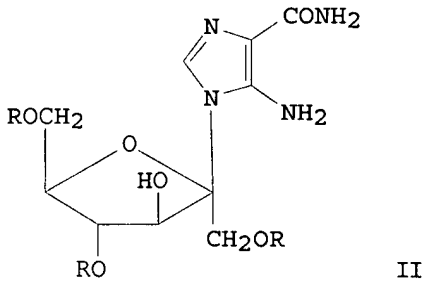


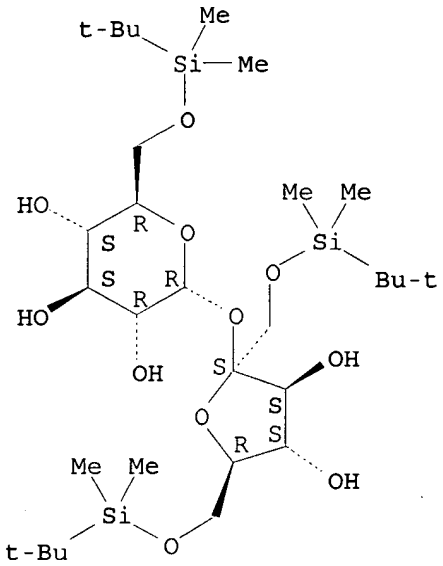
II

AB A β-D-fructofuranose fused oxazolidine-2-thione was isolated as the silyl derivative I, which when desulfurized and treated with α-amino-α-cyanoacetamide gave the silylated 1-β-D-fructofuranosyl aminoimidazole II (R = SiMe2CMe3) which when deblocked with methanolic hydrogen chloride produced 5-amino-β-D-fructofuranosylimidazole-4-carboxamide (II; R = H).

L10 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:531003 HCAPLUS
DOCUMENT NUMBER: 101:131003
TITLE: Sucrose derivatives and the selective benzoylation of the secondary hydroxyl groups of 6,1',6'-tri-O-tritylsucrose
AUTHOR(S): Holzapfel, Cedric W.; Koekemoer, Johannes M.; Marais, Charles F.
CORPORATE SOURCE: Chem. Dep., Rand Afr. Univ., Johannesburg, 2000, S. Afr.

SOURCE: South African Journal of Chemistry (1984), 37(2), 57-61
CODEN: SAJCDG; ISSN: 0379-4350
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 63734-13-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)
RN 63734-13-4 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

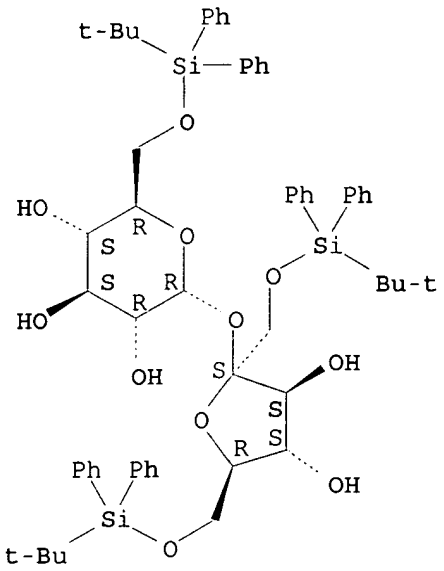
Absolute stereochemistry.



AB The preparation and 500 MHz 1H-NMR spectra of a number of sucrose derivs. are described. The assignment of the individual proton resonances in these compds. contributed to the identification of the mono- and dibenzoates obtained by benzoylation of 6,1',6'-tri-O-tritylsucrose following regioselective activation of the secondary OH groups by reaction with dibutyltin oxide or bis(tributyltin) oxide.

L10 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:123146 HCAPLUS
DOCUMENT NUMBER: 96:123146
TITLE: Sucrochemistry. Part XXXI. Synthesis and reactions of tert-butyldiphenylsilyl ethers of sucrose
AUTHOR(S): Karl, Horst; Lee, Cheang Kuan; Khan, Riaz
CORPORATE SOURCE: Group Res. Dev., Tate and Lyle Ltd., Reading, RG6 2BX, UK
SOURCE: Carbohydrate Research (1982), 101(1), 31-8
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 81086-97-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and acylation)
RN 81086-97-7 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)diphenylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

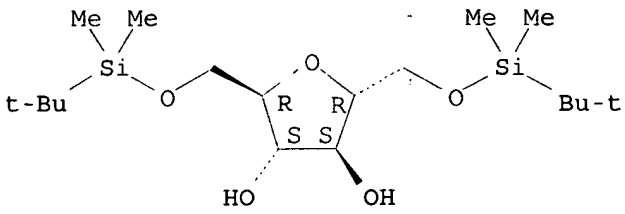
Absolute stereochemistry.



AB The reaction of sucrose with 1.1 mol equivalent of tert-butyldiphenylsilyl (t-BDPS) chloride in pyridine in the presence of 4-dimethylaminopyridine gave the crystalline 6'-t-BDPS ether (I) in 49% yield, without recourse to column chromatog. I was transformed into the 4,6,1'-trichloride by using SO2Cl2. When the silylation of sucrose was performed with 3 mol equivalent of the reagent, chromatog. gave the crystalline 6,6'-di-t-BDPS ether and the 6,1',6'-tri-t-BDPS ether (II) in yields of 78 and 18.7%, resp. II was obtained as the major product on treatment of sucrose with 4.6 mol equivalent of the silylating reagent. Removal of the silyl protecting-group in 6,6'-di-O-tert-butyldiphenylsilylsucrose hexabenzoate, using Bu4NF, proceeded smoothly, but with 4→6 migration of the benzoate.

L10 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:110980 HCAPLUS
DOCUMENT NUMBER: 92:110980
TITLE: The complexing properties of a chiral 18-crown-6 derivative incorporating a 2,5-anhydro-D-mannitol residue. A constitutional and stereochemical means of enhancing complexation
AUTHOR(S): Haslegrave, J. Anthony; Stoddart, J. Fraser; Thompson, David J.
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, S3 7HF, UK
SOURCE: Tetrahedron Letters (1979), (24), 2279-82
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 72536-29-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
RN 72536-29-9 HCAPLUS
CN D-Mannitol, 2,5-anhydro-1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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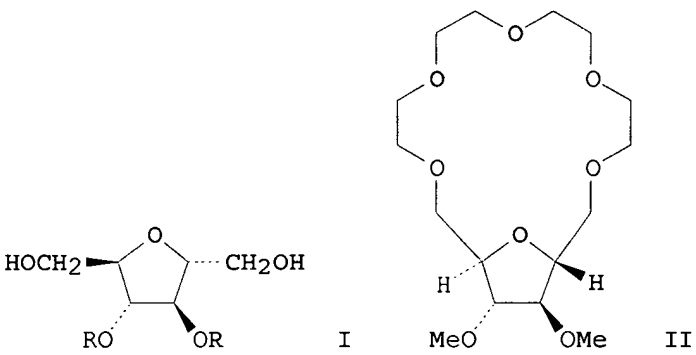
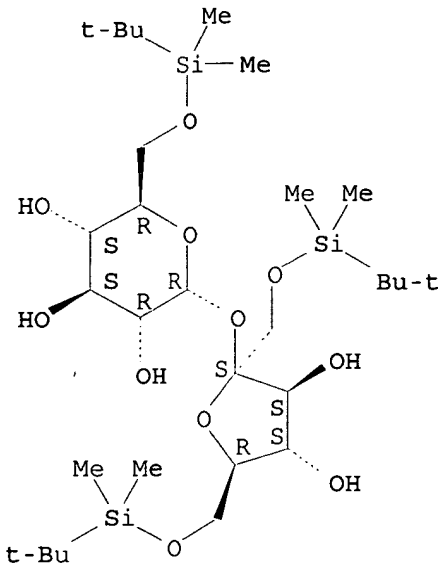


AB The anhydromannitol I (R = Me), prepared by standard procedures (yields 62-96%) from I (R = H), condensed with tetraethylene glycol bis(toluenesulfonate) to give 19% 18-crown-6 derivative II. II formed extremely strong 1:1 complexes with alkali metal cations, N+H4, and alkylammonium cations. Constitutional and stereochem. factors involved in the complexation, free energies of complexation, and the influence of the cation on the complexation are discussed.

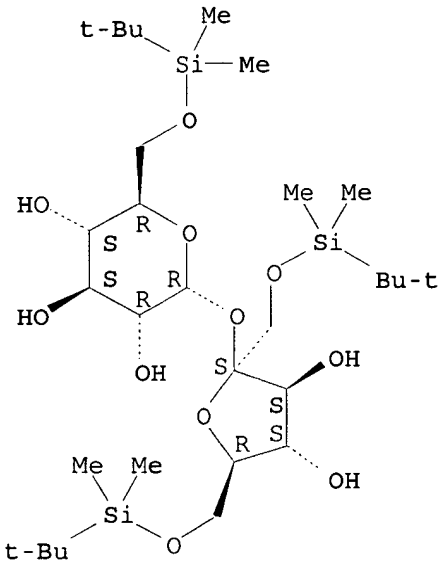
L10 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:536202 HCAPLUS
DOCUMENT NUMBER: 87:136202
TITLE: tert-Butyldimethylsilyl ethers of sucrose
AUTHOR(S): Franke, Fritz; Guthrie, R. D.
CORPORATE SOURCE: Sch. Sci., Griffith Univ., Nathan, Australia
SOURCE: Australian Journal of Chemistry (1977), 30(3), 639-47
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 63734-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(desilylation and methylation of)
RN 63734-13-4 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 63734-13-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 63734-13-4 HCAPLUS
CN α-D-Glucopyranoside, 1,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-fructofuranosyl 6-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

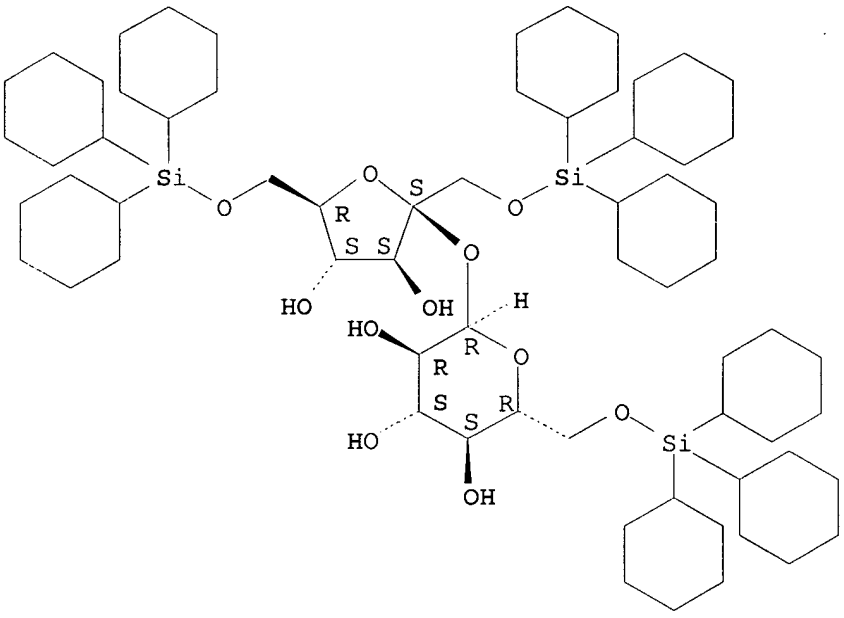
Absolute stereochemistry.



AB The tert-butyldimethylsilyl group was used as a blocking group in carbohydrate chemical; its selectivity towards primary hydroxyl groups, in the absence of imidazole, was shown by preparation of derivs. of Me α-D-glucopyranoside and sucrose. Me α-D-glucopyranoside was converted into Me 6-O-tert-butyldimethylsilyl-α-D-glucopyranoside and sucrose to 6,1',6'-tri-O-tert-butyldimethylsilylsucrose. In the presence of excess sucrose, a mixture of 6'-O-tert-butyldimethylsilyl-, 6,6'-O-tert-butyldimethylsilyl- and 6,1',6'-tri-O-tert-butyldimethylsilyl-sucroses was formed.

L10 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:415945 HCAPLUS
DOCUMENT NUMBER: 59:15945
ORIGINAL REFERENCE NO.: 59:2928h,2929a
TITLE: Sucrose derivatives. II. Some silyl and cyanoethyl ethers and a heptaacetal
AUTHOR(S): Barker, S. A.; Brimacombe, J. S.; Harnden, M. R.; Jarvis, J. A.
CORPORATE SOURCE: Univ., Birmingham, UK
SOURCE: Chem. Soc. (1963), (June), 3403-6
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 18919-51-2, Glucopyranoside, 1,6-bis-O-(tricyclohexylsilyl)-β-D-fructofuranosyl 6-O-(tricyclohexylsilyl)-, α-D-
894412-26-1, Sucrose, 1',6,6'-tris-O-(tricyclohexylsilyl)-
(preparation of)
RN 18919-51-2 HCAPLUS
CN Glucopyranoside, 1,6-bis-O-(tricyclohexylsilyl)-β-D-fructofuranosyl 6-O-(tricyclohexylsilyl)-, α-D- (8CI) (CA INDEX NAME)

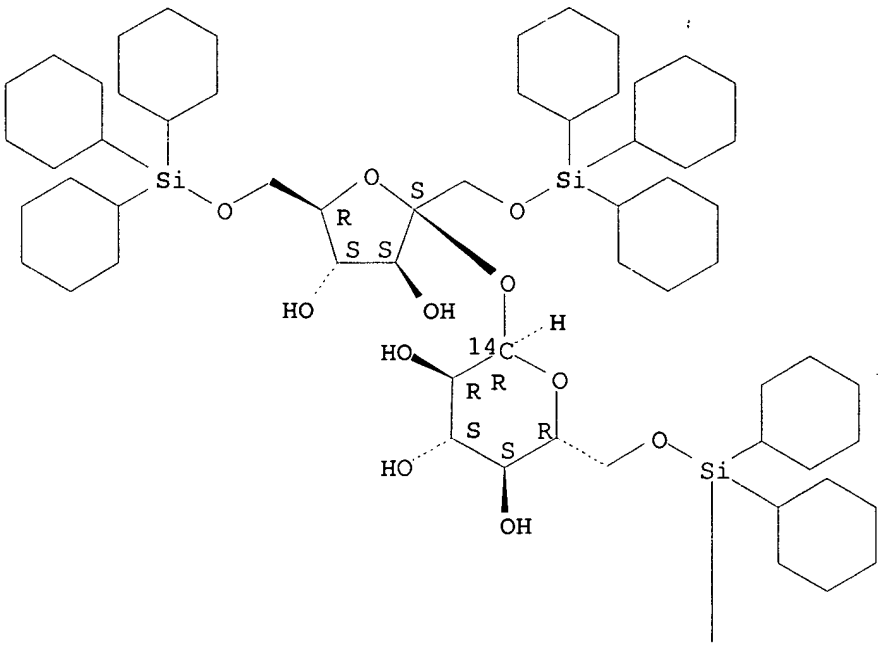
Absolute stereochemistry.



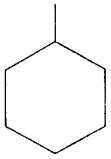
RN 894412-26-1 HCAPLUS
CN Sucrose, 1',6,6'-tris-O-(tricyclohexylsilyl)- (7CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

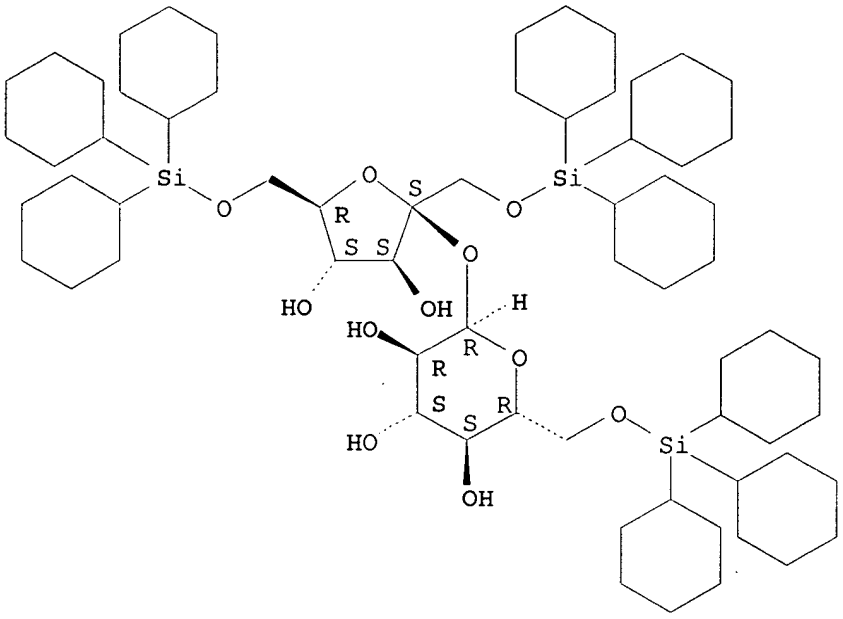


AB cf. CA 58, 2496b. Selective substitution of sucrose has been achieved by using chlorotricyclohexylsilane. 1,10-Divinyloxydecane with sucrose yielded mainly a heptaacetal. Tri-O-vinylsucrose has been produced by transvinylation of sucrose in tetramethylene sulfone. Octa-O(2-cyanoethyl)sucrose was isolated from the mixture produced by repeated reaction of sucrose with acrylonitrile.

L10 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:415944 HCAPLUS
DOCUMENT NUMBER: 59:15944
ORIGINAL REFERENCE NO.: 59:2928f-h
TITLE: Polynucleotides. I. Synthesis of uridylyl-(3' → 5')-uridine and uridylyl-(3' → 5')-6-azauridine
AUTHOR(S): Hall, Ross H.; Thedford, Roosevelt
CORPORATE SOURCE: Roswell Park Mem. Inst., Buffalo, NY
SOURCE: Journal of Organic Chemistry (1963), 28, 1506-9
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 59:15944
IT 18919-51-2, Glucopyranoside, 1,6-bis-O-(tricyclohexylsilyl)-β-D-fructofuranosyl 6-O-(tricyclohexylsilyl)-, α-D-
(preparation of)
RN 18919-51-2 HCAPLUS
CN Glucopyranoside, 1,6-bis-O-(tricyclohexylsilyl)-β-D-fructofuranosyl

6-O-(tricyclohexylsilyl)-, α-D- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



GI For diagram(s), see printed CA Issue.

AB 2',5'-Di-O-trityluridine serves as a convenient starting point for the synthesis of phosphate dinucleosides containing uridine. This compound was readily phosphorylated with cyanoethyl phosphate and after removal of the cyanoethyl group the resultant blocked nucleotide (I) was used to phosphorylate 2',3'-isopropylideneuridine and 2,3'-isopropylidene-6-azauridine. After removal of blocking groups, the title compds. (II and III) were isolated in good yield from ionexchange columns.

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